



Yolo Bypass

Overview

Historically, floodplains and wetlands filled California's Central Valley. In the winter, snow melt and storms attracted juvenile salmon towards a feast of plants and bugs thriving in sunlit shallow waters before they made their way out to the ocean. Levees, dikes, and development have since separated rivers from floodplains. Reclamation and California Department of Water Resources (DWR) are partnering to reconnect floodplain habitat and improve fish passage in the Yolo Bypass (Bypass), the largest contiguous floodplain remaining in the Central Valley.

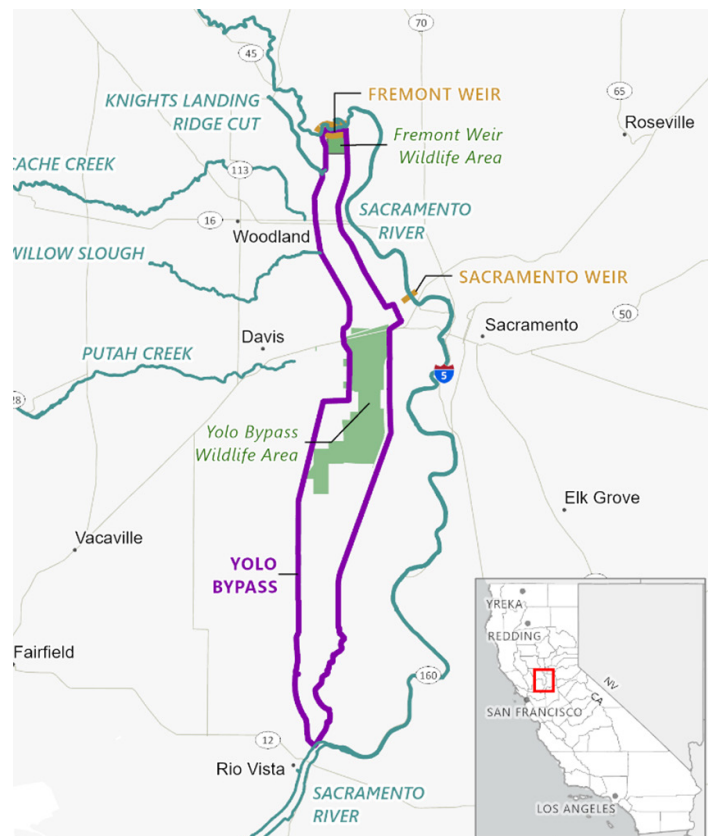
Flood Control

In the 1900s, the state of California and the U.S. Army Corps of Engineers developed a series of structures to protect Sacramento and the Central Valley from floods. The Bypass, a prominent feature of the Flood Control Project, is a leveed 59,000-acre engineered floodplain. The Bypass can convey roughly four-times more flow than the Sacramento River.



The Fremont Weir at the northern end of the Bypass is a 1.8-mile-long concrete structure designed to divert winter-and-spring Sacramento River floodwaters away from the city of Sacramento and outlying communities.

Particularly during atmospheric river events, high water spills into the 40-mile-long, 3-mile-wide Bypass from Fremont Weir, Sacramento Weir, Knights Landing Ridge Cut, Cache Creek, Willow Slough, and Putah Creek. Water eventually makes its way down the Tule Canal to the Toe Drain and exits to the Sacramento-San Joaquin Delta (Delta) near Rio Vista. The Bypass currently experiences at least some flooding for about 70-80% of most years.



Wildlife Areas

The Bypass retains many favorable characteristics of historic Central Valley floodplain habitat and features several wildlife areas. These include the Fremont Weir Wildlife Area (1,461 acres) at the north-end and the Yolo Bypass Wildlife Area (16,770 acres) along Interstate 80. Recreational uses include hunting, wildlife viewing, and educational tours.



The Yolo Bypass Wildlife Area provides habitat for wildlife and recreation for people.

Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project

Reclamation and DWR are partnering to reconnect floodplain habitat and improve fish passage. This project benefits federally-and-state-listed Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, Central Valley steelhead, and southern Distinct Population Segment green sturgeon. This project provides seasonal inundation that mimics the natural process of the floodplain and improves connectivity within the Bypass and to the Sacramento River.

Salmonids (steelhead and Chinook salmon) are born upstream of the Yolo Bypass, emerging from gravel in cool streams. They migrate downriver towards the Delta, transition to saltwater, and enter the ocean at the Golden Gate Bridge. They return to freshwater as adults, swimming upstream to the streams where they were born to spawn.

This project to reconnect floodplain habitat and improve fish passage is included Reclamation's 2020 associated Record of Decision, dated February 18, 2020, on the Long-Term Operation of the Central Valley Project and State Water Project. Construction of the Fremont Weir component of the project is scheduled for completion by 2022.

Floodplain Habitat

This project works with existing land uses and natural processes to increase access to, and acreage of, seasonal floodplain fisheries rearing habitat and increase productivity and food-web benefits.

Fish Passage

Adult salmon and sturgeon on their way upstream are often attracted into the Bypass after an overtopping event. Without the project, the fish become stranded nearly 40 miles upstream in the Bypass when the river later drops.

This project creates additional exit opportunities by improving connectivity within the Bypass and between the Bypass and Sacramento River when the river stage allows.



Development along the Sacramento River has decreased habitat quality and fish access. The lower Sacramento River is fast, cool, and deep, which impedes the growth of food. Juveniles currently move through the mainstem quickly without access to food-rich floodplains like the Yolo Bypass.

How it Works

- The project will construct a headworks structure (gated notch) and channels on the east side of the Fremont Weir.
- The notch will divert water and fish from the river onto the Bypass when river stage is high enough.
- The amount of water entering the notch will start out low and increase as the river stage rises.
- The gates will close to limit a maximum flow of 6,000 cubic-feet-per second as the stage approaches overtopping.
- The project also includes a supplemental fish passage structure on the west side of Fremont Weir and an agricultural-road-crossing replacement.